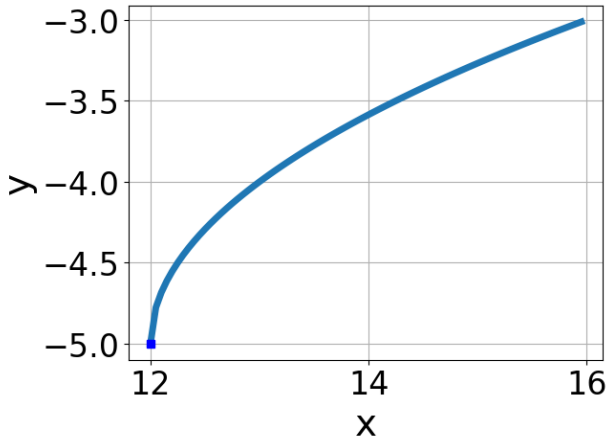
1. Choose the equation of the function graphed below.



A. $f(x) = -\sqrt[3]{x-12} - 5$

B. $f(x) = \sqrt[3]{x-12} - 5$

C. $f(x) = -\sqrt[3]{x+12} - 5$

D. $f(x) = \sqrt[3]{x+12} - 5$

E. None of the above

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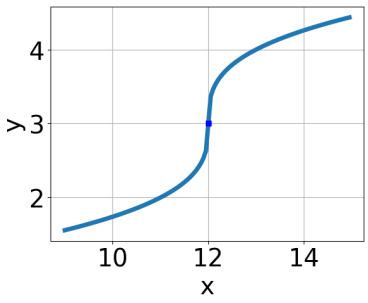
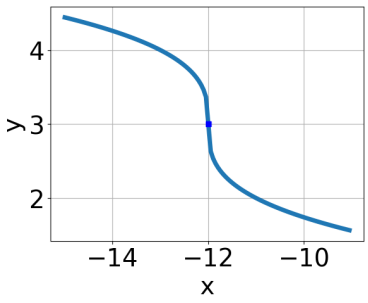
2. Choose the graph of the equation below.

$$f(x) = -\sqrt[3]{x+12} + 3$$

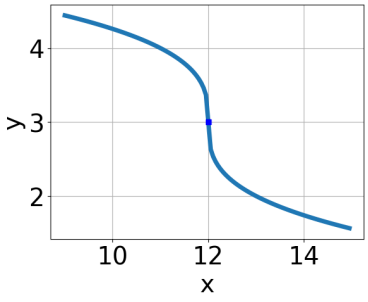
A.



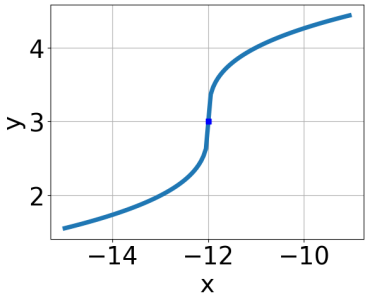
C.



B.



D.



E. None of the above.

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3. What is the domain of the function below?

$$f(x) = \sqrt[4]{-4x - 5}$$

A. $[a, \infty)$, where $a \in [-2.36, -0.83]$

B. $(-\infty, \infty)$

C. $(-\infty, a]$, where $a \in [-0.93, -0.64]$

D. $(-\infty, a]$, where $a \in [-1.43, -0.91]$

E. $[a, \infty)$, where $a \in [-1.11, 1.51]$

---

4. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{12x^2 - 14} - \sqrt{38x} = 0$$

A. $x_1 \in [-0.29, 0.48]$ and $x_2 \in [3.5, 5.5]$

B. $x \in [-0.57, 0.19]$

C. $x \in [2.68, 4.7]$

D. All solutions lead to invalid or complex values in the equation.

E. $x_1 \in [-0.57, 0.19]$ and $x_2 \in [3.5, 5.5]$

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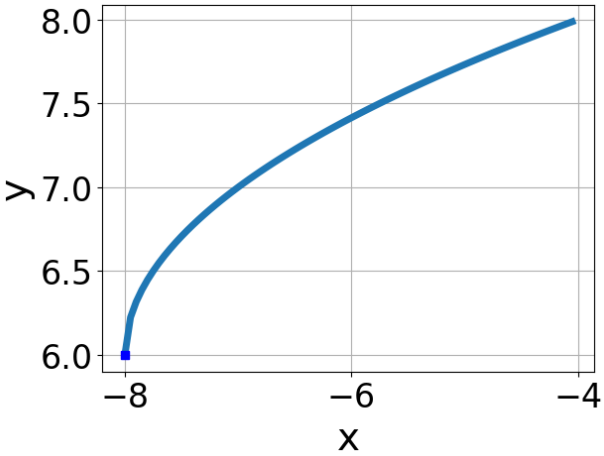
5. Choose the equation of the function graphed below.



A. $f(x) = -\sqrt{x+8}+6$

B. $f(x) = -\sqrt{x-8}+6$

C. $f(x) = \sqrt{x-8}+6$

D. $f(x) = \sqrt{x+8}+6$

E. None of the above

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6. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{5x-4} - \sqrt{-7x+9} = 0$$

A. $x_1 \in [0.78, 0.91]$ and $x_2 \in [1.25, 1.29]$

B. $x_1 \in [0.78, 0.91]$ and $x_2 \in [0.84, 1.12]$

C. $x \in [-0.61, -0.31]$

D. $x \in [0.97, 1.1]$

E. All solutions lead to invalid or complex values in the equation.

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7. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-35x^2+36} - \sqrt{-43x} = 0$$

A. All solutions lead to invalid or complex values in the equation.

B. $x_1 \in [0, 1.05]$ and $x_2 \in [-0.2, 2.8]$

C. $x_1 \in [-1.1, -0.09]$ and $x_2 \in [-0.2, 2.8]$

D. $x \in [-1.1, -0.09]$

E. $x \in [1.33, 2.34]$

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8. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-4x - 9} - \sqrt{-5x + 7} = 0$$

A. $x \in [15, 17]$

B. $x_1 \in [-7.25, 0.75]$ and $x_2 \in [15, 17]$

C. All solutions lead to invalid or complex values in the equation.

D. $x \in [1, 4]$

E. $x_1 \in [-7.25, 0.75]$ and $x_2 \in [0.4, 6.4]$

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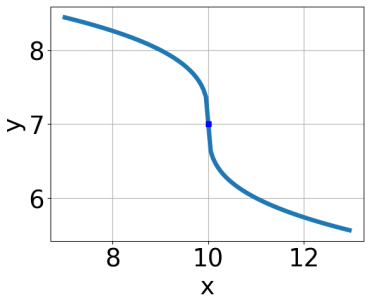
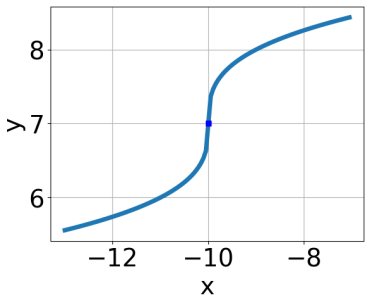
9. Choose the graph of the equation below.

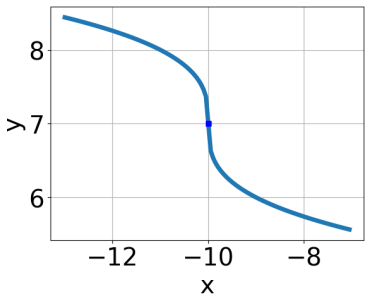
$$f(x) = -\sqrt[3]{x + 10} + 7$$

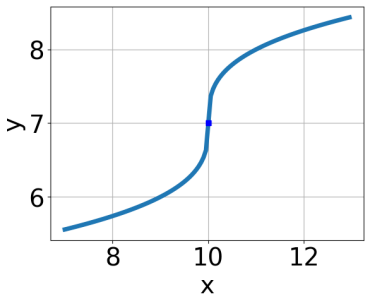
A.



B.



C. 

D. 

E. None of the above.

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10. What is the domain of the function below?

$$f(x) = \sqrt[4]{-6x - 5}$$

A. $[a, \infty)$, where $a \in [-0.85, -0.18]$

B. $(-\infty, \infty)$

C. $(-\infty, a]$, where $a \in [-1.94, -0.87]$

D. $[a, \infty)$, where $a \in [-1.76, -1.11]$

E. $(-\infty, a]$, where $a \in [-0.98, -0.42]$
